

ECHEANDIA PITTIERI Cruden, sp. nov.

Radicitubera juxta cormum. Scapus glaber. Folia basalia 8-11, anguste lanceolata. Folia caulina 3. Tepala alba. Filamenta recta, glabra. Antherae connatae. Capsula subglobosa 6.5-7.5 mm longa.

Root-tubers 1-1.5 cm long, 1.5-2 cm from corm. Basal leaves 8-11, (18-)29-41 cm long, (4-)11-20 mm wide, narrowly lanceolate, entire or short-ciliate. Scape 80-115 cm high, glabrous, branched. Cauline leaves 3. Tepals 10-12.5 mm long, to 2 mm wide, narrowly elliptic, white. Filaments 3-4.5 mm long, linear, smooth. Anthers 5.5-7 mm long, connate, yellow. Ovaries 2-3 mm long. Capsules 6.5-7.5 mm long, 5 mm wide. In flower late Jul-Aug.

Type: PANAMA: CHIRIQUI: 5 mi S Boquete toward David, in savanna near rocky creek, 2800 ft, 26 Aug 1965, McDaniel 6810 (Holotype: MO!; Isotype: DUKE!).

Additional Specimens Examined: COLUMBIA: MAGDALENA: ridge E Manaure, 1500 m, 3 Sep 1944, Haught 4342 (US); VALLE DEL CAUCA: Cordillera Occidental, Hoya del Río Sanjuniquín, Naranjal, 1200 m, 8 Dec 1943, Cuatrecasas 15356 (US); PANAMA: CHIRIQUI: vicinity Boquete, Llanos Francia, 3300 ft, 25 Jul 1959, Stern, Chambers, Dwyer, & Ebinger 1166 (MO).

This species differs from E. leucantha Klotzsch (= E. prolixa Woodson), which has scaled filaments and tubers that develop well away from the corm.

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NEW COMBINATIONS IN ECHEANDIA AND HAGENBACHIA (LILIACEAE)

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The new combinations proposed below are made at this time to provide names for studies of the flora of Mexico and Central America. Critical synonyms are given to clarify my concept of various taxa.

Echeandia formosa (Weatherby) Cruden, comb. nov.

Echeandia macrocarpa Greenman var. formosa Weatherby. Proc. Amer. Acad. Arts 45:392. 1910. Type: MEXICO: CHIAPAS: nr San Cristóbal, 7000-8000 ft, 18 Sep 1895, Nelson 3143 (Holotype: US!).

Echeandia vestita (Baker) Cruden, comb. nov.

Anthericum vestitum Baker, J. Linn. Soc., Bot. 15:307. 1876. Type: MEXICO: Veracruz to Orizaba, Muller 1331 (Holotype: K!).

A. crinitum Standley. Publ. Field Mus. Nat. Hist., Bot. Ser. 17:228-229. 1937.

Echeandia skinneri (Baker) Cruden, comb. nov.

Anthericum skinneri Baker. J. Linn. Soc., Bot. 15:318. 1876. Type: GUATEMALA: Skinner (Holotype: K!).

A. aurantiacum Baker. Bot. Jahrb. Syst. 15:318. 1876.

A. apodastanthum J. D. Smith. Bot. Gaz. (Crawfordsville) 19:265-266. 1894.

Echeandia ciliata (Kunth) Cruden, comb. nov.

Phalangium ciliatum Kunth. in Humb. Bonpl. & Kunth, Nov. Gen. Sp. 276, Tab. 676. 1816. Anthericum ciliatum Sprengel. Syst. Veg. 2:84. 1825. A. humboldtii Hemsley, Biol. Cent.-Amer., Bot. 3:374. 1886. A. sprengeli Rusby, Mem. Torrey Bot. Club 6:127. 1896. Type: Caracas, Humboldt (Isotype: P!).

Echeandia ramosissima (Presl) Cruden, comb. nov.

Phalangium ramosissimum Presl. Rel. Haenk. 2:127. 1827. Anthericum ramosissimum Schult. & Schult. Syst. Veg. 7:469. 1829. E. haenkeana Kunth. Enum. Plant. 4:629. 1843. Type: MEXICO: Acapulco (Lectotype: PR 243981A!; Isotype: PR 243981B!).

E. breviflolia Watson. Proc. Amer. Acad. 21:441. 1886.

E. nodosa Watson. Proc. Amer. Acad. 26:156. 1891.

Hagenbachia panamensis (Standley) Cruden, comb. nov.

Anthericum panamense Standley. Field Mus. Nat. Hist. Publ. Bot. 22:327. 1940. A. macrophyllum Baker. Bot. Jahrb. Syst. 8:209. 1887, non A. Rich. Fl. Abyss. 2:334. 1851. Type: PANAMA: COCLE: hills N of El Valle de Antón, 1000 m, 14 Jul 1940, Allen 2195 (Holotype: F!).